

WHAT IS CLAIMED IS:

1. A memory managing method for use with an information processing apparatus comprising a first memory and a processor for processing information held in said first memory, said information processing apparatus further allowing a second memory to be added thereto while being powered, said memory managing method comprising the steps of:

connecting said processor to at least one of said first and said second memories;

storing sizes of said first and said second memories connected to said processor; and

storing information about whether or not each of said first and said second memories is connected to said processor.

2. A memory managing method according to claim 1, further comprising the steps of:

causing said processor to update the stored memory sizes [when said second memory is added to said information processing apparatus]; and

storing all sizes of the memories connected to said processor.

3. A memory managing method according to claim 1, further comprising the steps of:

reserving in said first memory a management region necessary for adding said second memory;

retaining information for reserving said management region in said first memory; and

causing said processor to update said management region based on the retained information;

whereby said processor is allowed to use said second memory.

4. A memory managing method according to claim 3, further comprising the steps of:

calculating, when storing the size of said second memory to be added, both the size of said management region which is needed with respect to the size of said second memory and which is reserved in said first memory, and a memory size that may be added; and

establishing the calculated memory size as an expandable memory size.

5. A memory managing method according to claim 4, further comprising the step of reserving said management region in said first memory on the basis of the size of said second memory to be added.

6. A memory managing method according to claim 4, further comprising the steps of:

displaying an indication prompting input of a memory size within the calculated expandable memory size; and

establishing the input memory size as an expandable memory size.

7. A memory managing method according to claim 3, further comprising the steps of:

retaining information for reserving in said first memory said management region necessary for adding said second memory; and

retaining a memory size necessary for starting said information processing apparatus when said second memory is added.

8. A memory managing method according to claim 4, further comprising the steps of:

comparing the memory size necessary for starting said information processing apparatus before said second memory is added, with the memory size required to start said information processing apparatus after said second memory has been added; and

invalidating the addition of said second memory if the memory size required to start said information processing apparatus after said second memory has been added is found to be greater than the memory size necessary for starting said information processing apparatus before said second memory is added.

9. A memory managing method according to claim 4, further comprising the steps of:

comparing the memory size necessary for starting said information processing apparatus before said second memory is added, with the memory size required to start said information processing apparatus after said second memory has been added; and

adding part of the size of said second memory to said information processing apparatus if the memory size required to start said information processing apparatus after said second memory has been added is found to be greater than the memory size necessary for starting said information processing apparatus before said second memory is added, so that the memory size after the addition of said second memory will become less than the memory size before the addition of said second memory.

10. A memory managing method according to claim 4, further comprising the step of displaying said expandable memory size while said information processing apparatus is operating.

11. A memory managing method according to claim 4, further comprising the step of displaying the size of the memory added while said information processing apparatus is operating.

12. A memory managing method for adding a second memory to an information processing apparatus comprising a first memory, said memory managing method comprising the

steps of:

establishing a total memory size for said information processing apparatus;

calculating a size of an actually installed memory of said information processing apparatus when said information processing apparatus is started;

allocating in said first memory a memory management region based on said total memory size;

establishing management information about said actually installed memory;

calculating as an expandable memory size a difference between said total memory size and the size of said actually installed memory when said second memory is added while said information processing apparatus is operating; and

establishing memory management information about said expandable memory size in said first memory.

13. A storage medium storing a program for comprising the steps of:

when a second memory is added to an information processing apparatus including a first memory, calculating a size of a management region which is needed with respect to an added memory size and which is reserved in said first memory;

calculating an expandable memory size that may be

added while said information processing apparatus is operating; and

establishing said added memory size.

14. A storage medium storing a program according to claim 13, wherein said program further comprises the steps of:

displaying an upper and a lower limit of the calculated expandable memory size that may be added while said information processing apparatus is operating;

allowing a value to be selected between said upper and said lower limits; and

establishing the selected value as said added memory size.

15. An information processing apparatus comprising:  
a first memory;  
a processor for processing information held in said first memory, said information processing apparatus further allowing a second memory to be added thereto while being powered;

connecting means for connecting said processor to at least one of said first and said second memories;

first storing means for storing sizes of said first and said second memories connected to said processor; and

second storing means for storing information about whether or not each of said first and said second memories

is connected to said processor.

16. An information processing apparatus according to claim 15, further comprising retaining means for retaining information for reserving in said first memory a management region necessary for adding said second memory;

wherein said processor reserves said management region in said first memory; and

wherein said processor updates said management region based on the retained information, thereby making use of said second memory.

17. An information processing apparatus according to claim 15, wherein said processor calculates, when the size of said second memory to be added is stored, both the size of said management region which is needed with respect to the size of said second memory and which is reserved in said first memory, and a memory size that may be added; and

wherein said processor establishes the calculated memory size as an added memory size.

18. An information processing apparatus according to claim 15, wherein said processor compares the memory size necessary for starting said information processing apparatus before said second memory is added, with the memory size required to start said information processing apparatus after said second memory has been added; and

wherein said processor invalidates the addition of

said second memory if the memory size required to start said information processing apparatus after said second memory has been added is found to be greater than the memory size necessary for starting said information processing apparatus before said second memory is added.

19. An information processing apparatus according to claim 15, wherein said processor compares the memory size necessary for starting said information processing apparatus before said second memory is added, with the memory size required to start said information processing apparatus after said second memory has been added; and

wherein said processor adds part of the size of said second memory to said information processing apparatus if the memory size required to start said information processing apparatus after said second memory has been added is found to be greater than the memory size necessary for starting said information processing apparatus before said second memory is added, so that the memory size after the addition of said second memory will become less than the memory size before the addition of said second memory.

20. An information processing apparatus for allowing a memory to be added thereto while being powered, said information processing apparatus comprising:

a first memory;

a processor for processing information held in said

first memory; and

establishing means for establishing a total memory size for said information processing apparatus;

wherein said processor calculates a size of an actually installed memory of said information processing apparatus when said information processing apparatus is started;

wherein said processor allocates in said first memory a memory management region based on said total memory size;

wherein said processor establishes memory management information about said actually installed memory in said first memory;

wherein said processor calculates as an expandable memory size a difference between said total memory size and the size of said actually installed memory when said second memory is added while said information processing apparatus is operating; and

wherein said processor establishes memory management information about said expandable memory size in said first memory.